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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/655,954 | 09/06/2000 | ROBERT TINGLEY | DPL-005-(6209/7) | 8524 |

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EXAMINER

LAU, TUNG S

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2863

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/655,954

Applicant(s)

TINGLEY ET AL.

Examiner

Tung S Lau

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 8, 11, 12, 16, 17, 24, 25, 27, 29-38, 42, 43, 50- 53, and 55-58 is/are rejected.
- 7) ☒ Claim(s) 6,9,10,13-15,18-23,26,39-41,44-49 and 54 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7, 8, 11, 12, 16, 17, 24, 25, 27, 29-38, 42, 43, 50- 53, and 55-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Levesque (U.S. Patent 5,392,652).

Levesques discloses a pipeline inspection method system including a wave launcher in communication with a pipeline and adapted to transmit an input waveform having a selected input energy along a longitudinal axis of said pipeline (col. 4-5, lines 39-7), and to receive a reflected component of said input waveform from said pipeline, said reflected component having a characteristic reflected energy (col. 12, lines 16-55), an analyzer in communication with said wave launcher and adapted to generate said input waveform (col. 5, lines 49-56), and to receive said reflected component of said input waveform from said wave launcher (col. 5, lines 49-56), and a processor in communication with said analyzer and adapted to compare said input waveform with said reflected component of said input waveform to determine a characteristic of said pipeline (col. 5, lines 49-56, fig. 2), wherein the wave launcher, the analyzer, and the

processor operate in a fashion that is non-invasive to the pipeline (col. 5, lines 49-56, col. 12, lines 16-55), calculating mathematical function model (col. 9, lines 1-53, fig. 1, 2) of model of reflected energy from a component (col. 12, lines 16-55) to detect abnormality of the pipeline (col. 6-7, lines 50-8), to determine the location of the points along the pipeline (col. 1-2, lines 63-17), detect velocity in reflected components along longitudinal axis (col. 9, lines 3-31), use of electromagnetic waveform (col. 2, lines 34-46), use acoustic waveform (col. 2, lines 34-46), use of wideband waveform (col. 8-9, lines 22-1), to detect cracks (col. 1, lines 20-47), to detect shape, size of the anomaly (col. 6, lines 50-68), to determine the curvature (abstract, col. 6, lines 50-68), mathematical model as a transfer function (fig. 2), use of a cross sectional of the pipeline (col. 8, lines 22-46).

Claim Objections

2. Claims 6, 9, 10, 13-15, 18-23, 26, 39-41, 44-49, 54 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitation of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: prior art fail to teach the use of absolute size, the use of probe antenna is in physical contact with the pipeline, the mathematical model is ideal, lossy, averaging. The extract of energy in phase, the use of cutoff frequency of the pipeline, calculation in dominant mode, spread spectrum calibration using temperature.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

3. Applicant's arguments filed 12/6/2002 have been fully considered but they are not persuasive.

A. Applicant argues that the prior art does not show the comparing of the waveform with the reflected component; Levesque shows the comparison of waveform of the reflected component using Snell's law in figure 2.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mandal (U.S. Patent 5,995,447) talk about a system for processing acoustic signals which uses non-invasive testing with reference to Levesques' invention (col. 1, lines 20-26, col. 3-4, lines 54-5).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory

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action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 703-305-3309.

The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 703-308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5841 for regular communications and 703-308-5841 for After Final communications.

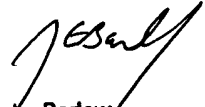
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TC2800 RightFAX Telephone Numbers : TC2800 Official Before-Final RightFAX - (703) 872-9318, TC2800 Official After-Final RightFAX - (703) 872-9319

TC2800 Customer Service RightFAX - (703) 872-9317

TL

February 19, 2003


John Barlow
Supervisory Patent Examiner
Technology Center 2800